

979596

M E M O R A N D U M

TO: John Cooper, Environmental Safety
FROM: Denis Padovani, Environmental Safety/Region 2
DATE: May 4, 1988
SUBJECT: Characterization Results from 1409 Dundee Avenue,
Elgin, Illinois

The above mentioned facility has been determined to have belonged to an M. J. Silberts and Company from 1959 to 1972. The facility will be referred to as M. J. Silberts on any further correspondence.

On Thursday, April 28, 1988, Vince Muzzalupo and myself met with the architect, Roger Jadown. Mr. Jadown supplied a back-hoe and operator in order to get a profile of the contamination along the building and in the yard. We stripped the blacktop of the areas of interest and dug holes in the highest and a mid-range area. Please refer to the attached diagram for those locations.

An inspection team consisting of Tim Runyon, Vince Muzzalupo, Rick Hand and myself performed core sampling of the areas along the building designated as "A, B and C" on 5-3-88. Please refer to Appendix A for field analysis results. As you can see from those results, the isotope involved is indeed RA-226 and its daughter products.

The heaviest concentrations of RA-226 appeared to be in the top two feet of soil, and dropped off significantly, then reappeared at the four to five foot levels. The depth normally associated with the drain tiles is 3 feet 6 inches with a southerly route out to the main sewer line. The soil at this depth also smelled of fuel oil as did a drain in the utility/boiler room floor which then ran directly into the drain tile.

An additional survey of the roof of the building showed slightly elevated levels in the east side gutters, i.e. 12,000-20,000 cpm, with a background of 5,000 cpm using a SPA-3. The east side of the chimney showed a maximum of 20,000 cpm with no readings anywhere on the roof using an AC-3 alpha scintillator.

At this point, I will leave any speculation on the source of contamination from operations to your imagination.

DP:mb *D.M.P.*
cc: Bob Lommler
: Tim Runyon

Appendix A

Illinois Department of Nuclear Safety

Gamma Spectrum Field Analysis Results
for Ra-226

M. J. Silberts & Company
1409 Dundee Avenue, Elgin, Illinois

<u>Sample Reference</u>	<u>Results (pCi/g)</u>
Correlation Curve - High End	1135.7 (215K net cpm)
Correlation Curve - Mid-range	218.0 (45K net cpm)
Correlation Curve - Low End	7.6 (0 net cpm)
HOLE A:	
# 1 Average of 0-1 feet	403.7
# 2 Average of 0-1 feet	140.1
2-3 feet	29.3
3-4 feet	51.5
4-5 feet	162.4
HOLE B:	
0-1 feet	98.6
1-2 feet	19.5
HOLE C:	
0-1 feet	17.5
1-2 feet	82.6
2-3 feet	30.2
HOLE D:	
Average of 0-1 feet	313.6

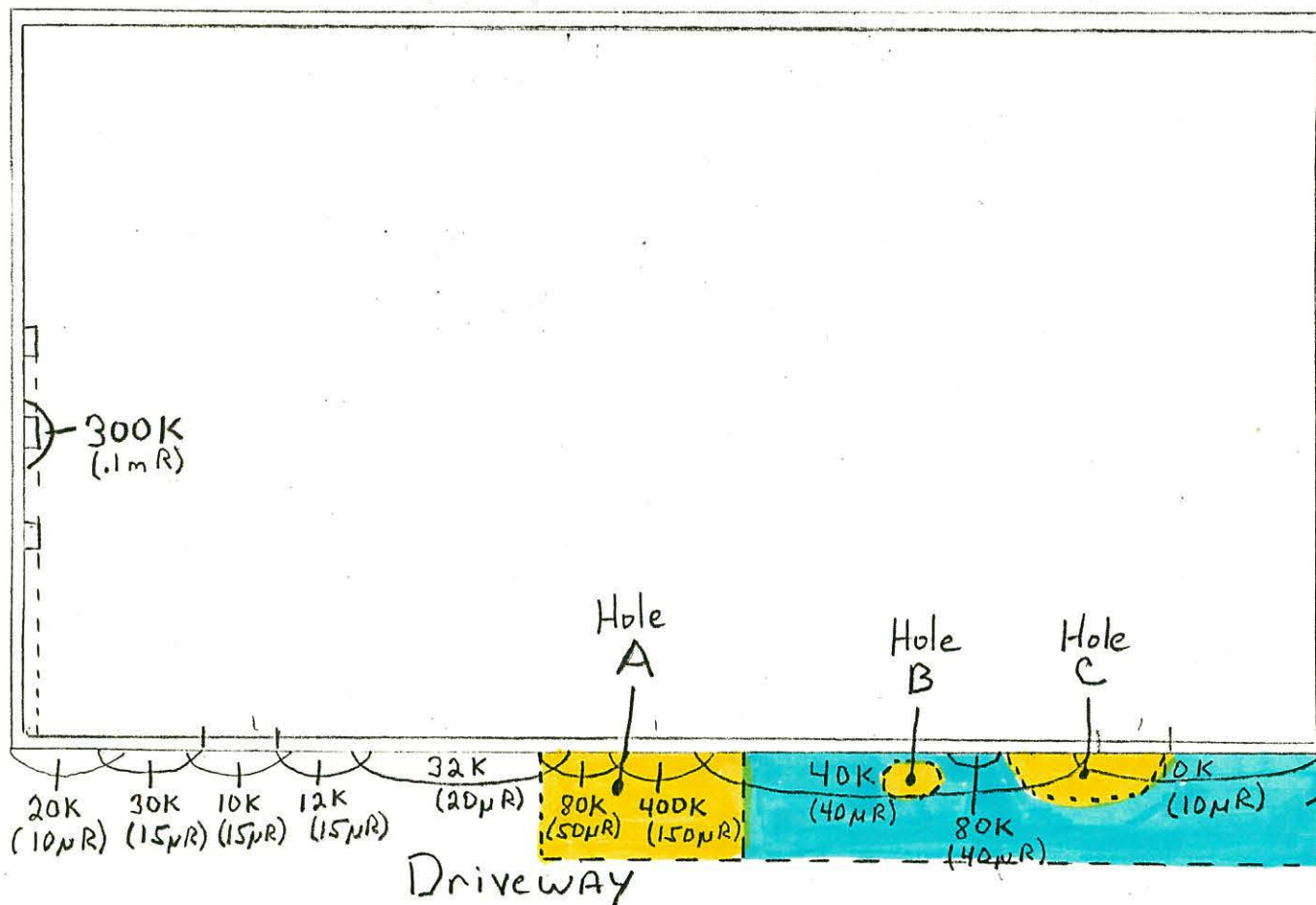
Dundee Rd.

1409 Dundee Rd. Elgin, IL.

→ N

Existing
Parking Lot

Stewart St.

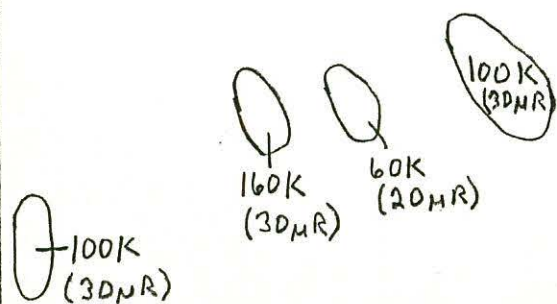


Area of Excavation

Driveway

yard

Diagram A



40K
(15MR)

